

# United States Patent and Trademark Office

PAPER NUMBER

ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. FILING DATE FIRST NAMED INVENTOR 09/410,249 09/30/1999 DEBEBE A. ALAMINEH 119-045-ALAM 7590 12/31/2003 **EXAMINER GREGORY A WELTE** JAGANNATHAN, MELANIE

806 NORTH COUNTY ROAD **700 WEST** FRANKFORT, IN 46041

2666 DATE MAILED: 12/31/2003

ART UNIT

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | <b>U</b>   |              | Application No.     |  | Applicant(s)                               |        |
|--|--|--------------|---------------------|--|--|--------|
| Office Action Summary  |  |              |                     |  | ALAMINEH, DEBEBE A.                        |        |
|  |  |              | 09/410,249          |  |  |        |
|  |  |              | Examiner            |  | Art Unit                                   |        |
|  | The MAIL ING DATE of this commu  |              | Melanie Jagannathan |  | 2666<br>rrespondence ad                    | Idress |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |  |              |                     |  |  |        |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status  |  |              |                     |  |  |        |
| 1)⊠  | Responsive to communication(s) filed on <u>25 September 2003</u> .   |              |                     |  |  |        |
| 2a) <u></u> ☐  | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.   |              |                     |  |  |        |
| 3)□  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |              |                     |  |  |        |
| Dispositi  | on of Claims   |              |                     |  |  |        |
| 5)⊠<br>6)⊠<br>7)⊠  | Claim(s) 1-30 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  Claim(s) 23-30 is/are allowed.  Claim(s) 1,2 and 5-22 is/are rejected.  Claim(s) 3 and 4 is/are objected to.  Claim(s) are subject to restriction and/or election requirement. |              |                     |  |  |        |
|  | on Papers  |              | noonon roquiromen   |  |  |        |
|  | The specification is objected to by t  | he Examiner. |                     |  |  | •      |
| •  | ☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.   |              |                     |  |  |        |
|  | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |              |                     |  |  |        |
|  | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |              |                     |  |  |        |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |              |                     |  |  |        |
| Priority under 35 U.S.C. §§ 119 and 120  |  |              |                     |  |  |        |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78. |  |              |                     |  |  |        |
| Attachment(s)  |  |              |                     |  |  |        |
| 2) 🔲 Notic   | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (<br>nation Disclosure Statement(s) (PTO-1449)  |              | 5) D Notice of      |  | PTO-413) Paper No(<br>ent Application (PTC |        |

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## DETAILED ACTION

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims **1-2,5-22** are rejected under 35 U.S.C. 102(e) as being anticipated by Perkins US 5,412,654.

Regarding claims 1-2,13,15-16,21-22, the claimed step of at each node, repeatedly examining status of links connecting to the node and if a change is detected, flooding the network with news of the change in messages is disclosed by host broadcasting routing information to other hosts in order for hosts to update their routing tables and modified routes are disclosed in a broadcast routing information packet whenever a link is broken. See column 7, lines 24-32. See column 2, lines 47-51, column 6, lines 58-66 and column 7, lines 6-8.

Examiner has interpreted the term "self-propagating" as messages lacking stated destinations and is flooded when received by a node as supported by specification on pages 26-27. The claimed self-propagating message is disclosed by Perkins with broadcast of routing information to other hosts for updating their routing tables and receiving host subsequently broadcasting routing information to hosts. See column 7, lines 6-8. Examiner has interpreted the term "self-terminating" as messages that are discarded based on information contained in message as supported in specification on page 27. The claimed self-terminating message is

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disclosed by broadcasted messages having older timestamps are discarded. See column 7, lines 59-67.

Regarding claims 5,17,20, the claimed method of generating a message which reports a change in status of a link and transmitting the message to all the nodes in the network is anticipated by host broadcasting routing information to other hosts in order for hosts to update their routing tables. See column 2, lines 47-51, column 6, lines 58-66 and column 7, lines 6-8.

The claimed repeating the steps of generating new reports and propagating them to all the nodes in the network is disclosed by modified routes are disclosed in a broadcast routing information packet whenever a link is broken. See column 7, lines 24-32. Regarding claim 14, the claimed nodes of paragraph (c) include nodes which originated the propagating reports is disclosed by Perkins where all the mobile hosts disclosed route changes in broadcast packets as a result of a broken link.

Regarding claims 6,18, the claimed method of, at an originating node, generating a message which reports a change in status of a link and transmitting the message to the neighbors of the originating node and the claimed step in the method of, at each neighbor, storing the message if the neighbor does not know of the change are disclosed by host broadcasting routing information to other hosts in order for hosts to update their routing tables and modified routes are disclosed in a broadcast routing information packet whenever a link is broken. See column 7, lines 24-32. See column 2, lines 47-51, column 6, lines 58-66 and column 7, lines 6-8. The claimed transmitting the message to neighbors of the neighbor is disclosed by Perkins by routing information received in broadcasts is also advertised by receiver when it subsequently broadcasts its routing information. See column 7, lines 6-8.

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Regarding claim 7, the claimed step of the neighbors not transmitting acknowledgment of receipt of the message is disclosed by Perkins by routing information received in broadcasts and advertised by receiver when it subsequently broadcasts its routing information but the receiver does not send acknowledgments back to originator. See column 7, lines 6-8.

Regarding claim 8, the claimed message being assigned an age is disclosed by packets being assigned timestamps and metrics. Regarding claims 8 and 9, the claimed neighbor of the node and the neighbors of the neighbor decrementing the age prior to transmission is disclosed by timestamps and metrics being updated through the routing process. See column 5, lines 19-27, column 7, and lines 27-29.

Regarding claim 10, the claimed neighbor discarding the message if the neighbor has previously received the message is disclosed by routes with older timestamps being discarded or existing routes being discarded. See column 7, lines 59-67.

Regarding claims 11,19, the claimed method of generating a message which reports a change in status of a link and transmitting the message to neighbors in the originating node in the network and after all nodes have received the message, terminating propagation of messages and the claimed without informing the originator of receipt of the message by nodes. is disclosed by host broadcasting routing information to other hosts in order for hosts to update their routing tables, modified routes are disclosed in a broadcast routing information packet whenever a link is broken, routes with older timestamps being discarded or existing routes being discarded and no acknowledgments sent to originator. See column 7, lines 6-8, 24-32, lines 59-67, column 2, lines 47-51, column 6, lines 58-66.

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Regarding claim 12, the claimed replacing of propagating reports with new reports is anticipated by modified routes are disclosed in a broadcast routing information packet whenever a link is broken. See column 7, lines 24-32.

## Allowable Subject Matter

- 3. Claims **3-4** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 4. Claims 23-30 are allowed. Prior art of record, in single or in combination, do not disclose testing of data link and if indicated defective, generating route status packets, comparing route status packets with incoming packet, updating status table, queuing packets which would be transmitted over defective link and once deemed operational, transmitting over link and generating substitute routes and initiating process of emptying queue.

## Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. Examiner appreciates detailed description of prior art.

Regarding claims 8-10, Applicant argues support for these rejections with cited columns and lines do not disclose claimed subject matter. However, Examiner notes Applicant is referring to Rochberger for these cited columns instead of primary reference Perlman. As shown in office action, claims 8-10 do not have obvious and motivation statements as they are disclosed

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by primary reference Perlman to which the cited columns belong to while claims 6-7 use secondary reference Rochberger. A new grounds of rejection has been submitted but Examiner wished to relay this misunderstanding to Applicant.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Melanie Jagannathan Patent Examiner AU 2666

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For Seema S. Lao July May TRANK DUONG